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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,132	08/03/2001	Harushige Yamamoto	NIL-166	6416

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

GRAHAM, ANDREW R

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/921,132	YAMAMOTO, HARUSHIGE	
	Examiner	Art Unit	
	Andrew Graham	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. The applicant's amendment of 9/20/04 has been received and entered into the present application.

Allowable Subject Matter

2. The indicated allowability of former claim 2, 7, and 8, as they are now represented in pending Claims 2, 4, and 8 is withdrawn in view of the newly discovered reference(s) to Koga et al (USPN 5970390 A) and Tien et al (USPN 6381452 B1) and Altstatt (USPN 5771441). Rejections based on the newly cited reference(s) follow.

Drawings

3. The drawings received on 8/3/01 are approved and accepted.

Double Patenting

4. Claims 2-6 and 8-9 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 2-3 and 5-9 of copending Application No. 10/944906. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-5, and 8-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al (USPN 5970390 A), hereafter "Koga", and in further view of Tien et al (USPN 6381452 B1), hereafter "Tien".

Koga teaches a system for transmitting audio signals from a portable audio device to a radio installed in an automobile.

Regarding **Claim 2**, Koga discloses:

An audio system for an automobile (col. 5, lines 53-59) comprising:

a radio (FM receiver) mounted to the automobile (col. 5, lines 53-63);

a plug transmitter (30) plugged (via 31) into a cigar lighter socket ("socket") and able to input electric power ("derive a DC voltage") from a power source mounted to the automobile (col. 3, lines 13-19 and 66-67, col. 4, lines 1-5; Figure 3), and

a portable audio device (10) connected (via 42) to the plug transmitter (30) (col. 3, lines 13-31);

wherein said plug transmitter (30) transmits (converts to FM signal, transmits via 46) an audio signal from the portable audio device (10) as a radio wave in a receiving frequency band of said radio (FM signal having specification as presently available FM broadcasting system) (col. 3, lines 16-36), and

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said radio (FM receiver) receives the radio wave from said plug transmitter (30) and performs an audio output operation from a speaker (col. 5, lines 42-59).

Regarding Claim 2, Koga does not specify:

- a card reading modulator portion for reading data from a memory card, recording audio data, and outputting the read data as an audio signal is additionally arranged in said plug transmitter;
- and the audio signal from the card reading modulator portion can be transmitted as a radio wave in the receiving frequency band of said radio.

Tien discloses a multifunction audio player for use with a vehicle audio system. Analogous to the system of Koga, the apparatus of Tien may be powered through connection to an automobile lighter plug (140, col. 2, lines 7-10) and transmits a signal to a radio of a vehicle audio system (col. 2, lines 17-21).

Specifically regarding **Claim 2**, Tien discloses:

- a card reading modulator portion (comprising 123,160,125) for reading data from a memory card (col. 2, lines 10-17 and 62-67; col. 3, lines 1-11),
- recording audio data (col. 3, lines 17-31),
- and outputting the read data as an audio signal (col. 2, lines 26-30) is additionally arranged in said plug transmitter (circuitry of Figure 2, in view of 30 of Koga); and

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- the audio signal from the card reading modulator portion (comprising 123,160,125) can be transmitted as a radio wave (by 13) in the receiving frequency band of said radio (8) (col. 2, lines 14-21) .

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to implement the external memory card storage system and corresponding circuitry of Tien as part of the lighter plug powered audio transmitter system of Koga. The motivation behind such a modification would have been that such a system would have enabled the transmitter of Koga to playback music in an automobile that was sourced from a computer telecommunications interface with a network. Such an integrated memory structure would have also enabled music for playback to be received directly via an external microphone.

Regarding **Claim 3**, Koga discloses:

An audio system for an automobile according to claim 1, wherein a constant voltage output circuit (32) is further arranged in said plug transmitter (30) (col. 3, lines 66-67),

and electric power (DC voltage) can be supplied to said portable audio device (10) connected (via 34) to the plug transmitter (30) (col. 4, lines 5-8)

Regarding **Claim 4**, Koga discloses:

A plug transmitter (30) characterized in that a transmitting circuit (40) is stored in a case (39) having a plug-in portion (31)

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able to be plugged into a cigar lighter socket (col. 3, lines 12-20; col. 4, lines 53-66, Figure 2);

a power input terminal (illustrated on 31, Figure 3) for inputting electric power from a power source (circuit that provides electricity to lighter socket) mounted to an automobile is arranged in said plug-in portion (31)(col. 4, lines 1-2);

an input connector (42) connected to said transmitting circuit (40) and inputting an audio signal from a portable audio device (10) is arranged in said case (39)(Figure 2, col. 5, lines 37-51); and

said transmitting circuit (40) is operated by the electric power from said power input terminal (on 31)(col. 4, lines 2-5; col. 5, lines 23-28)

and wirelessly transmits said audio signal as a radio wave in a receiving frequency band of a radio mounted to the automobile (col. 5, lines 51-59).

Regarding Claim 4, Tien teaches:

a card reading modulator portion (part of 12 comprising mainly 123,160,125) is connected to said transmitting circuit (13) within said case (10,11)(col. 3, lines 1-16)

a card insertion hole is formed in said case in accordance with a card insertion port (132) of said card reading modulator portion (implicit, as slot 123 is part of 12 installed inside 10,11, though 15 is an external component inserted into 123, col. 1, lines 55-60; col. 2, lines 1-16; col. 3, lines 1-11) and

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the card reading modulator portion (12) reads data from a memory card (15) recording audio data, and outputs the read data to said transmitting circuit (12) as an audio signal (output of audio decoder 1250) (col. 2, lines 21-31; col. 3, lines 1-16).

Regarding **Claim 5**, Koga in view of Tien discloses:

said input connector is an input pin jack (128) into which a pin of an audio cable (end of 7 of Tien, Figure 2) (col. 2, lines 1-6; col. 3, lines 26-31 of Tien)

having one end connected to an external output terminal (12 of Koga) of said portable audio device (10 of Koga) is plugged (col. 5, lines 8-12) (jack 12 output connection of Koga in view of jack 128 input connection of Tien).

Regarding **Claim 8** as it depends on Claims 4 or 5, Koga in view of Tien discloses:

wherein said case (39 of Koga) is constructed by a main body (39 in Figure 3 of Koga) for storing said transmitting circuit (40) (Figure 2)

and an adapter portion (140 of Tien) detachably attached (via 120 of Tien) to the main body (10,11 of Tien, col. 2, lines 7-10; in view of 39 of Koga),
and said card reading modulator portion (123,160,125 of Tien) is arranged in said main body (Figure 2 is in case 10,11 of Tien, col. 1, lines 55-67; taken in view of case 39 and circuitry of Figure 2 of Koga).

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Regarding **Claim 9** as it depends from Claims 4 and 5, Koga in view of Tien discloses:

wherein a constant voltage output circuit (32 of Koga) for converting the electric power inputted from said power input terminal (on 31 of Koga) to an external power input voltage (V_{32} of Koga) of the portable audio device (10) is arranged in said case (39) (col. 4, lines 2-8, Figure 2 of Koga),

and an output power jack (physically analogous to power jack 120 of Tien) connected to an output of the constant voltage output circuit (32 of Koga) is arranged in said case (39 of Koga) (use of jacks in main case 10,11 of Tien for input/output of signals, in view of application of output of power to portable device via 34 of Koga).

5. **Claims 6, 8, and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga in view of Tien as applied above, and in further view of Altstatt (USPN 5771441).

As detailed above, Koga teaches a system for transmitting audio signals from a portable audio device to a radio installed in an automobile. The connection (42) to the audio device in Koga is wired (Figure 3). This connector reads on "said input connector is a jack pin"

Regarding Claim 6, Koga in view of Tien does not specify:

- that the pin is projected in an upper wall of said case,

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- and the portable audio device is held on the case by plug-in coupling with a female jack arranged in the portable audio device.

Alstatt teaches an RF transmitter for a portable audio device.

Regarding **Claim 6**, Alstatt discloses:

- that the pin (18) is projected in an upper wall (a face of 16) of said case (16) (Figure 1, 'upper' is a relative term, col. 4, lines 36-39),
- and the portable audio device (10) is held on the case by plug-in coupling with a female jack (12) arranged in the portable audio device (10) (col. 4, lines 36-40, in view of plug of Figure 1 of Koga, wherein connectors are on face of plug perpendicular to cigarette lighter connection)

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to replace the wired stereo connectors of the system of Koga in view of Tien with an integrated plug as taught by Alstatt. The motivation behind such a modification would have been that such a connector would have eliminated interconnecting wires, preventing a user from getting tangled in the wires or having something snag said wires.

Regarding **Claim 8** as it depends on Claim 6, Koga in view of Tien particularly discloses:

wherein said case (39 of Koga) is constructed by a main body (39 in Figure 3 of Koga) for storing said transmitting circuit (40) (Figure 2)

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and an adapter portion (140 of Tien) detachably attached (via 120 of Tien) to the main body (10,11 of Tien, col. 2, lines 7-10; in view of 39 of Koga),

and said card reading modulator portion (123,160,125 of Tien) is arranged in said main body (Figure 2 is in case 10,11 of Tien, col. 1, lines 55-67; taken in view of case 39 and circuitry of Figure 2 of Koga).

Regarding **Claim 9** as it depends from Claim 6, Koga in view of Tien particularly discloses:

wherein a constant voltage output circuit (32 of Koga) for converting the electric power inputted from said power input terminal (on 31 of Koga) to an external power input voltage (V_{32} of Koga) of the portable audio device (10) is arranged in said case (39) (col. 4, lines 2-8, Figure 2 of Koga),

and an output power jack (physically analogous to power jack 120 of Tien) connected to an output of the constant voltage output circuit (32 of Koga) is arranged in said case (39 of Koga) (use of jacks in main case 10,11 of Tien for input/output of signals, in view of application of output of power to portable device via 34 of Koga).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Graham whose telephone number is 571-272-7517. The examiner can normally be reached on Monday-Friday, 8:30 AM to 5:00 PM (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 2, 2005


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600